

Claim Listing

1. (Previously Presented) In a cable data delivery network for delivering digital data to a host location upon a subscriber initiated request, an apparatus for authenticating that the subscriber is authorized to use said network, said apparatus comprising:

a network manager including at least one database of authorized users and authorized unique identifiers for each of a plurality of authorized data communication devices and a validation agent, said validation agent further comprising:

logic to authorize the subscriber to access a first communications path by comparing first subscriber authentication information received from a data communication device associated with the host location with at least part of the at least one database comprising the authorized users, the first communications path providing at least a portion of connectivity between the host location and a head end of the cable data delivery network; and

logic to authorize the subscriber to access a second communications path, responsive to the first communications path authorization, by comparing a unique identifier of the data communication device that is received from the data communication device with at least part of the at least one database comprising the authorized unique identifiers for each of the plurality of data communication devices,

the second communications path providing at least a portion of connectivity between the host location and the head end of the cable data delivery network.

2. (Previously Presented) The apparatus of claim 1, wherein said first subscriber authentication information includes a subscriber USERID.
3. (Previously Presented) The apparatus of claim 2, wherein said first subscriber authentication information further includes a subscriber password.
4. (Previously Presented) The apparatus of claim 3, wherein said at least one database includes an associated USERID and password for each of said authorized users.
5. (Previously Presented) The apparatus of claim 4, wherein said validation agent authorizes said subscriber to use said first communications path in accordance with a comparison of said subscriber USERID and said subscriber password to USERIDS and passwords stored in said at least one database.
6. (Previously Presented) The apparatus of claim 5, wherein said data communication device associated with the host location includes a dial up device that further includes a cable data receiver for receiving said digital data.

7. (Previously Presented) The apparatus of claim 6, wherein said dial up device is uniquely identified by the unique identifier that comprises an electronic identifying number, and wherein the unique identifier that is received from the data communication device includes the electronic identifying number.
8. (Previously Presented) The apparatus of claim 7, wherein said at least one database further includes authorized identifying numbers for each of a plurality of dial up devices including said dial up device.
9. (Previously Presented) The apparatus of claim 8, wherein said validation agent authorizes said dial up device to receive said digital data over the second communications path in accordance with a comparison of said identifying number of said dial up device with said identifying numbers stored in said at least one database.
10. (Previously Presented) The apparatus of claim 1, wherein the first communications path is a public switched telephone network (PSTN) link.
11. (Previously Presented) The apparatus of claim 1, wherein the first communications path is bi-directional.
12. (Previously Presented) The apparatus of claim 1, wherein the second communications path is a radio frequency (RF) cable link.

13. (Previously Presented) The apparatus of claim 1, wherein the second communications path is uni-directional.

14. (Previously Presented) A method of authorizing a subscriber to access a first communications path and a second communications path, the first communications path and the second communications path utilized in conveying data between a head end of a cable data delivery network and a data communication device associated with the subscriber of the cable data delivery network, the method comprising the steps of:

authorizing the subscriber to access the first communications path by comparing first subscriber authentication information received from the data communication device with at least part of at least one database of authorized users, the first communications path providing at least a portion of connectivity between the data communication device and the head end of the cable data delivery network; and

authorizing the subscriber to access the second communications path, responsive to the first communications path authorization, by a unique identifier of the data communication device that is received from the data communication device with at least part of the at least one database that further includes authorized unique identifiers for each of a plurality of authorized data communication devices, the second communications path providing at least a portion of connectivity between the data communication device and the head end of the cable data delivery network.

15. (Previously Presented) The method of claim 14, wherein the first subscriber authentication information comprises a USERID and a password.
16. (Previously Presented) The method of claim 14, wherein the unique identifier of the data communication device comprises an electronic identifying number.
17. (Previously Presented) The method of claim 14, wherein the first communications path is a public switched telephone network (PSTN) link.
18. (Previously Presented) The method of claim 14, wherein the first communications path is bi-directional.
19. (Previously Presented) The method of claim 14, wherein the second communications path is a radio frequency (RF) cable link.
20. (Previously Presented) The method of claim 14, wherein the second communications path is uni-directional.

21. (Previously Presented) An apparatus utilized in authorizing a subscriber to access a cable data network at a first level of service and a second level of service, the cable data network providing connectivity between a head end and a data communication device associated with the subscriber, comprising:

logic configured to authorize the subscriber to access the cable data network at the first level of service by comparing first subscriber authentication information received from the data communication device with at least part of at least one database of authorized users; and

logic configured to authorize the subscriber to access the cable data network at the second level of service responsive to the first level of service authorization by comparing a unique identifier of the data communication device that is received from the data communication device with at least part of the at least one database that further includes authorized unique identifiers for each of a plurality of authorized data communication devices.

22. (Previously Presented) The apparatus of claim 21, wherein the first level of service is at a higher data rate than the second level of service.

23. (Previously Presented) The apparatus of claim 22, wherein the first level of service operates over a bi-directional public switched telephone network (PSTN) link.

24. (Previously Presented) The apparatus of claim 22, wherein the second level of service operates over a radio frequency (RF) cable link.

25. (Previously Presented) A method of authorizing a subscriber to access a cable data network at a first level of service and a second level of service, the cable data network providing connectivity between a head end and a data communication device associated with the subscriber, the method comprising the steps of:

authorizing the subscriber to access the cable data network at the first level of service by comparing first subscriber authentication information received from the data communication device with at least part of at least one database; and

authorizing the subscriber to access the cable data network at the second level of service, responsive to the first level of service authorization, by comparing a unique identifier of the data communication device that is received from the data communication device with at least part of the at least one database that further includes authorized unique identifiers for each of a plurality of authorized data communication devices.

26. (Previously Presented) The method of claim 25, wherein the first level of service is at a higher data rate than the second level of service.

27. (Previously Presented) The method of claim 26, wherein the first level of service operates over a bi-directional public switched telephone network (PSTN) link.

28. (Previously Presented) The method of claim 26, wherein the second level of service operates over a radio frequency (RF) cable link.

29. (Previously Presented) A method of logging into a cable data network that has a plurality of levels of service, the method comprising the steps of:

logging into the cable data network at a first level of service by sending first subscriber authentication information from a data communication device associated with a subscriber to at least one validation agent configured to compare the first subscriber authentication information to at least one database of authorized users in order to authorize the subscriber to log into the network at the first service level; and

logging into the cable data network at a second level of service, responsive to logging into the network at a first level of service by a unique identifier of the data communication device associated with the subscriber to the at least one validation agent, the at least one validation agent further configured to compare the unique identifier of the data communication device to at least one database of authorized unique identifiers for each of a plurality of authorized data communication devices in order to authorize the subscriber to log into the network at the second service level.

30. (Previously Presented) The method of claim 29, wherein the first level of service is at a higher data rate than the second level of service.



31. (Previously Presented) The method of claim 30, wherein the first level of service operates over a bi-directional public switched telephone network (PSTN) link.

32. (Previously Presented) The method of claim 30, wherein the second level of service operates over a radio frequency (RF) cable link.

33. (Previously Presented) The apparatus of claim 1, wherein the data delivery is restrained until authorization is completed.

34. (Previously Presented) The apparatus of claim 1, wherein the first subscriber authentication information comprises a password provided to the validation agent by the subscriber and the unique identifier of the data communication device is a number provided to the validation agent by the data communication device associated with the host.

35. (Previously Presented) The method of claim 14, wherein the data conveyance is restrained until authorization is completed.

36. (Previously Presented) The method of claim 14, wherein the first subscriber authentication information comprises a password provided to the head end by the subscriber and the unique identifier of the data communication device is a number provided to the head end by the data communication device associated with the subscriber.

37. (Previously Presented) The apparatus of claim 21, wherein the data network access is restrained until authorization is completed.

38. (Previously Presented) The apparatus of claim 21, wherein the first subscriber authentication information comprises a password provided to the head end by the subscriber and the unique identifier of the data communication device is a number provided to the head end by the data communication device associated with the subscriber.

39. (Previously Presented) The method of claim 25, wherein the data network access is restrained until authorization is completed.

40. (Previously Presented) The method of claim 25, wherein the first subscriber authentication information comprises a password provided to the head end by the subscriber and the unique identifier of the data communication device is a number provided to the head end by the data communication device associated with the subscriber.

41. (Previously Presented) The method of claim 29, wherein the logging into the cable data network is restrained until authorization is completed.

42. (Previously Presented) The method of claim 29, wherein the first subscriber authentication information comprises a password provided to the at least one validation agent by the subscriber and the unique identifier of the data communication device is a number provided to the at least one validation agent by the data communication device associated with the subscriber.

43. (Previously Presented) The apparatus of claim 7, wherein the electronic identifying number is a modem electronic serial number.

44. (Previously Presented) The method of claim 14, wherein the data communications device of the subscriber of the cable data network includes a cable data receiver for receiving said digital data, wherein said data communications device is uniquely identified by the unique identifier.

45. (Previously Presented) The apparatus of claim 21, wherein the data communication device associated with the subscriber includes a cable data receiver for receiving said digital data, wherein said data communication device is uniquely identified by an electronic serial number.

46. (Previously Presented) The method of claim 25, wherein the subscriber uses a device which includes a cable data receiver for receiving said digital data, wherein said device is uniquely identified by an electronic serial number.

47. (Previously Presented) The method of claim 29, wherein the unique identifier of the data communication device associated with the subscriber is an electronic serial number.